



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Michael S. Steele
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December 3, 2004

Dear Resident:

The Maryland Department of the Environment (MDE) continues to investigate the drinking water well impacts from methyl tertiary-butyl ether (MtBE) in the vicinity of the Upper Crossroads Exxon gasoline service station. This letter is an update on activities that have taken place since an investigation report was submitted to MDE on October 8, 2004 and ExxonMobil's last letter to the public on September 2, 2004.

Groundwater Sampling

- To date, 351 residential well sites have been sampled. The October 2004 sampling event has revealed: 10 wells had concentrations of MtBE above the State action level of 20 parts per billion (ppb); 12 were between 10 and 20 ppb; 14 were between 5 and 10 ppb; 90 were between 0.5 and 5 ppb; 65 had concentrations above non-detect but below 0.5 ppb; and 160 wells tested non-detect.
- The MDE's interpretation of the latest sampling events indicates that there is no significant change in MtBE levels in the Upper Crossroads area.
- ExxonMobil continues to install and maintain water treatment systems on residential drinking water wells where MtBE has been detected. As of November 9, 2004, ExxonMobil had installed 154 triple canister carbon filtration systems at these homes and will continue to install units until all private wells with MtBE detections are addressed.

Ongoing Remedial Activity

- The Soil Vacuum Extraction system continues to operate at the Exxon station removing contaminated soil vapor from around the storage tank systems and surrounding soil. Vapor from this system is treated before it is exhausted into the air. MtBE levels have dropped from a high of 26,000 ppb to 1.9 ppb in the water in the gasoline storage tank field.

Subsurface Investigation

- On October 8, 2004, ExxonMobil submitted a Subsurface Investigation Report. The report can be viewed on MDE's web site at: www.mde.state.md.us/Programs/Landprograms/Oil_Control/RemediationSites and a copy is available at the Harford County Public Library, Fallston Branch. MDE has conducted preliminary review of the October investigation report and will be issuing a formal comment letter. Our preliminary findings are that the MDE agrees with the reported subsurface fracture trends and

groundwater flow directions and with the investigation techniques used to date. However, the MDE wants ExxonMobil to better address the interpretation of the data being collected and wants further tests to determine how the supply and monitoring wells, groundwater producing fractures and petroleum contamination are connected. MDE has requested ExxonMobil to install additional monitoring wells to better define the groundwater directional flow in the deeper zones.

- The October report and other site information indicate that the groundwater flow from the Exxon station is toward the Southeast. This direction appears to be consistent with the overall subsurface fractures trends described in the October 8 report.

Further hydrogeological investigation has been approved by MDE. ExxonMobil installed six additional monitoring wells and is performing what is known as down-hole geophysical studies on three of the new wells. These studies are being done to identify the location and orientation of fractures and major water bearing zones. The tests utilized included Acoustic Televiewer, Spontaneous Potential, Neuron Density, Temperature Log, and Caliper Log. All are very detailed tests that will provide information on water bearing fracture zones.

- All of this work is leading to a critical part of the investigation, a groundwater pump test. The additional work is being performed now in order for the execution of the pump test by the end of December 2004. The pump test is a test that measures the quantity of water that can be withdrawn from the subsurface and the radius of influence of the pumping well. This will allow a determination of the hydraulic properties conductivity of the groundwater and assist in choosing the best remedial option for the site. The MDE has required that ExxonMobil take steps to insure that the pump test does not cause water supply (quantity) problems in any active off site supply well.
- A Corrective Action Plan (CAP) will be required once the pump test is performed and the data analyzed. The CAP will be for the area of ExxonMobil's responsibility as determined by the MDE. ExxonMobil will be allowed to withdraw their activities from areas not within the determined area of responsibility. MDE will maintain the carbon filtration units in homes with MtBE levels at or above 20 ppb located outside of ExxonMobil's area of responsibility as long as the home is not determined to be the source of the contamination within the well.

Surface Water Investigation

The MDE has finished a report on the surface water sampling in the Upper Crossroads area. The sampling indicates no impact of Volatile Organic Compounds, including MtBE, in the surface water. However, MDE will monitor one stream South of the Exxon station as this case progresses. The decision to monitor this additional stream was based on the subsurface fracture trends in the area.

Other Activities

Other MDE activities within the Upper Crossroads study area include the former Scarff's Market and Walkers Garage. Both sites received Notice of Violations from MDE ordering further site study. MDE is in receipt of an investigation plan provided by Walkers. The plan is under review by MDE. Scarff has provided a letter stating an inability to proceed. At this time there are no other violation actions within the study area.

- Several residences outside of the Upper Crossroads study area continue to sample their wells independently. The Harford County Health Department has agreed to collect copies of those sample reports and map the areas of concern. MDE is working with the Health Department on investigations for these areas. Case activities continue in the communities of Bellvale, Glen Elyn, and Crest Way. Investigation conclusion has been accomplished for the Putnam Road area.

Emergency Regulations

- On August 11, 2004, Governor Ehrlich announced emergency regulations related to underground storage systems in response to the growing concern of MtBE being found in the water in sensitive groundwater use areas. These emergency regulations have been drafted by MDE. They require improved release detection and site monitoring. Although these regulations may not directly help with the current contamination in Fallston, we believe they will result in the prevention of future releases. The emergency and proposed regulations were submitted to the Administrative, Executive and Legislative Review (AELR) Committee on November 5, 2004.

The MDE will continue to keep the community informed about the progress of this investigation. We have posted many of the case documents on our web site at:

http://www.mde.state.md.us/Programs/LandPrograms/Oil_Control/RemediationSites/index.asp

If you have any questions or concerns, please feel free to contact the Oil Control Program at 410-537-3442. You may also correspond with Herbert Meade, Program Administrator, at hmeade@mde.state.md.us.

Sincerely,



Horacio Tablada, Director
Waste Management Administration

HT:rjm

cc: U.S. Congressional Delegation
Harford County Delegation
Harford County Council
The Honorable James Harkins
Dr. Andrew Bernstein (Harford County Health Dept.)
Ms. Cathy Libertz
Mr. Ken Drake (ExxonMobil Corp)